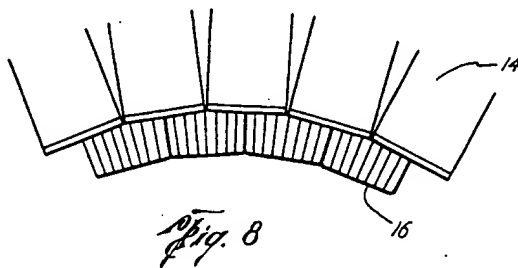
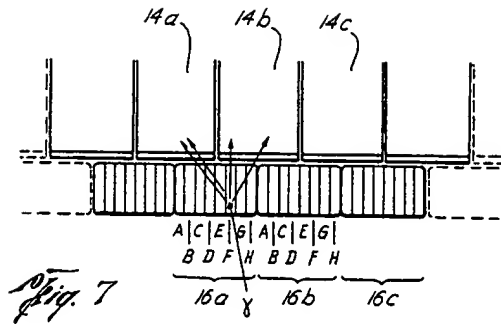


REMARKS

The Examiner's rejection of claims 1-6, 9, 10-12, 15, 17-22, 24-29, 32-35 and 40 under 35 U.S.C. §103(a) as being unpatentable over Wong (U.S. Patent No. 5,319,204) and Berninger (U.S. Patent No. 3,919,556) and further in view of Engdahl (U.S. Patent No. 5,753,917) is noted. Additionally, the Examiner's rejection of claims 7, 8, 13, 14, 30, 31, 36, 37 and 38 under 35 U.S.C. §103(a) as being unpatentable over Wong and Berninger and Engdahl and further in view of Skillicorn et al. (U.S. Patent No. 6,060,713) and Roscoe et al. (U.S. Patent No. 5,521,378) is noted. Finally, the Examiner's rejection of Claims 16, 23 and 39 under 35 U.S.C. §103(a) over Wong, Berninger and Engdahl and further in view of Moisan et al. (U.S. Patent No. 6,087,663) is also noted.

Common to each of these claim rejections is the Examiner's assertion that the claims are obvious from a combination of Wong, Berninger and Engdahl and this combination will be addressed hereinbelow to traverse each of these claim rejections. In order to establish a prima facie case of obviousness, the Examiner must show that each limitation of the rejected claim is disclosed in the cited references and that the references teach, suggest or disclose the motivation to combine the references so as to produce the claimed invention.

In this regard, it is respectfully submitted that the Examiner has not shown any teaching, suggestion or motivation to modify Wong's PET camera so as to include a light pipe configured in the manner taught by Berninger. In this regard, the Examiner states that one skilled in the art would have been motivated to use a continuous light guide as taught by Berninger so as to provide "an optically transparent medium to satisfy the linearity and the position resolution of the gamma camera and will also provide a refractive index match between the scintillator and the detector, a feature necessary to decrease spurious light scattering." See Page 4 of the Office Action. However, there is no teaching in Wong that Wong's PET camera suffers from either of these problems. Further, Berninger teaches that the light guide is adapted to be in direct contact with the photocathodes, thus necessitating Berninger's concave regions in his light pipe. As seen in the figures reproduced below, it does not appear that Wong utilizes the convexly curved photocathodes taught by Berninger or the collimators taught by Berninger. Thus, one skilled in the art would have no motivation to modify Wong's PET camera in the manner asserted by the Examiner.



Figs. 7 & 8, U.S. Patent No. 5,319,204

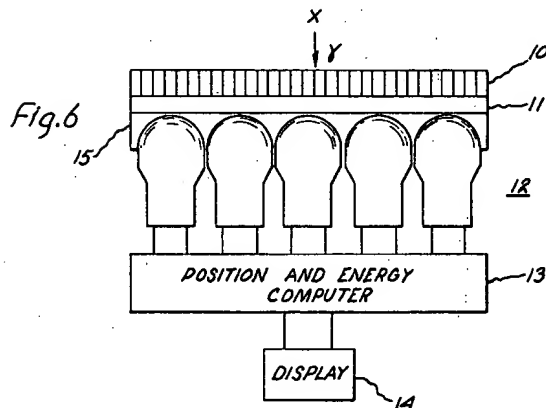


Figure 6 U.S. Patent No. 3,919,556

Moreover, it does not appear that Wong teaches the use of a light guide. In this regard, Wong states that "Figure 8 illustrates a plurality of arrays or blocks 16 of crystals 12 placed adjacent a plurality of PMTs 14." Wong, Col. 7, lines 42-43. Thus, it is respectfully submitted that there would be no motivation to modify Wong in the manner asserted by the Examiner.

It is respectfully submitted that the cited references do not teach, suggest or disclose the motivation to combine the references in the manner suggested by the Examiner. Therefore the

Examiner is respectfully requested to withdraw the 35 U.S.C. §103(a) rejections as to each of the pending claims.

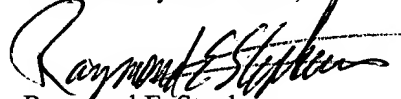
With regard to Claim 41, Claim 41 is a re-presentation of original dependant claim 6, set forth as an independent claim. Claims 42-54 depend, either directly or indirectly, from Claim 41. Original Claim 6 stated that the $(m) \times (n)$ array of scintillator elements does not equal the $(q) \times (p)$ array of optical detectors. It is respectfully submitted that the Examiner has conceded that this is not taught in the prior art. In this regard, on page 3 of the Office Action, the Examiner notes that "In this case, the number of photomultiplier arrays (i.e. $(p \times q)$) is less than the number of scintillation crystal arrays $(m \times n)$, however **the conventional prior art techniques use one detector for every scintillation crystal and thus $(p \times q)$ equals $(m \times n)$** [emphasis added]." It is respectfully submitted that the claim at hand, and the other similarly worded dependent claims, i.e. claims 22 and 29, merely state that $(m) \times (n)$ array of scintillator elements does not equal the $(q) \times (p)$ array of optical detectors, not that $(p \times q)$ is less than $(m \times n)$. Nevertheless it is submitted that the Examiner has indicated that this inequality of arrangement is not taught in the prior art. Thus, it is respectfully submitted that Claims 41 – 54 are allowable over the prior art.

Accordingly, Applicants respectfully request withdrawal of the Examiner's 35 U.S.C. §103 rejections of claims 1-5 and 7-40. Further, as stated above claims 41-54 are deemed allowable over the prior art. Accordingly, it is respectfully submitted that the §103 rejections have been traversed and that Claims 1-5 and 7-54, inclusive of the above requested amendments, are allowable over the prior art.

In view of a discussion of the claims remaining in the present application with respect to the prior art, it is deemed that the above-identified patent application is now in a condition for the issuance of a Notice of Allowance. Such action by the examiner is respectfully requested. However, if the Examiner is of the opinion that any claim is still not allowable, it will be appreciated if he will telephone the undersigned to expedite the prosecution of the present patent application.

Please charge any additional fees associated with this communication, or credit any overpayment, to Deposit Account No. 16-1910.

Respectfully submitted,



Raymond E. Stephens

Registration No. 42,170

PITTS AND BRITTIAN, P.C.
P.O. Box 51295
Knoxville, Tennessee 37950-1295
(865) 584-0105 Voice
(865) 584-0104 Fax